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## Implications of Tax Receivables and Retribution for the Economic Growth of Indonesia

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**Abstract:**

*In line with its aim, the nature of the research was of hypothesis testing through which, the effect of some empirical variables were analyses. Techniques of data collection used a table matrix on which all data of the identified variables were recorded. The data were computed statistically using path analysis.*

*The research findings stated that there were partial and multiple effects of all the variables under the studies towards the investment boost on the toll roads. The significant multiple effect of all variables was indicated by the number of 87.43%. Meanwhile, the direct effect of natural resources was 22.09% and its effect through relationship with the five variables was 1.65%.*

*The findings recommend the government as well as to the companies to be highly attentive to natural resources and to the five variables when building the toll roads. It is suggested that the government issue regulations for the investors' lenience, procurement, and safety.*

**Keywords :** Investment, Tax, Retribution, Jobs, Economic Growth

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## 1. Introduction

Indonesia as the largest archipelago country in the world must master the transportation infrastructure, if it wants to maintain the unity of the republic of Indonesian country (NKRI). Transport infrastructure in Indonesia consists of: (1) land transport infrastructure which includes (a) road, (b) railway infrastructure, (c) river, lake and ferry transport infrastructure, (2) marine transport infrastructure, (3) Infrastructure air transport, and (4) space transportation infrastructure (pro memory). In a competitive business environment and dynamic demands of increasing the competitiveness of investment into something of a major hope for the investors, the state and society. Physical infrastructure such as transportation and telecommunications infrastructure as a social capital of society, is an infrastructure in economic growth, a prerequisite of economic and social activity, and a factor of competitiveness in global competition.

The development of toll road transport infrastructure spur economic growth, namely (1) Increasing the fulfillment of transportation infrastructure needs, in line with the economic growth that began to improve (range 5-6% / year), (2) Increasing the productivity considering toll roads as the access of infrastructure to accelerate the production resource mobilization from one place to another that spur economic growth, (3) Encouraging the emergence of investment in other development sectors such as industrial development that accelerates the production of raw materials into finished goods and distribution, and services directly to toll road users, such as the establishment of gas stations and restaurants.

Several previous studies that examined the relationship between economic growth and human development include: Directorate of Institutional Development Infrastructure Public, Bapenas (2005). To guarantee infrastructure support for economic growth, the government is expected to seek a resolution of a substantial financing gap of approximately Rp 266.7 trillion (US \$ 31.4 billion using the Rp 8,500 per US \$) rate. In order to cover the gap between the estimated investment needs of infrastructure as well as the estimates of the government ability to finance infrastructure investments, among others, through the reallocation of government budgets that focus more on infrastructure development; Encouraging private parties to play an active role in infrastructure development and management or establishing a financing institution that can fund infrastructure projects.

David Aschauer (2000) argues that the availability of infrastructure services is an important production factor. The study also found the fact that the decline in productivity, can be caused by worsening availability of infrastructure services. This study was initiated by World Bank (2003) which stated that economic growth of one percent was closely related to the growth of the availability of infrastructure services by one percent too. Novelty stated in this study that economic growth influenced taxes, levies and employment and investment toll roads that have never been studied before.

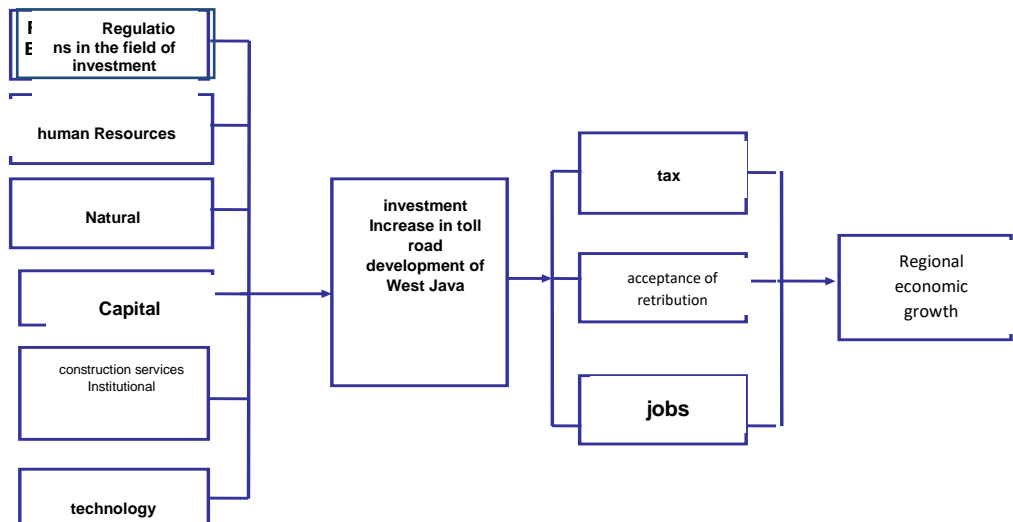
## **2. Theory and Hypothesis**

Measuring the economic growth of a country, economists agree on the use of data on gross domestic product (GDP). Basically economic growth can be seen from two sides, namely the demand side (Aggregate Demand) and supply side (Aggregate Supply). On the demand side of economic growth will be influenced by the large demand for economic households on goods and services (output), this developed by Keynes which consists of household consumption (C), gross investment from the private sector and government (I), Government expenditure (G), and net exports (XM). Groups (Nayia Mahajan and Satish Verma, 2014; Sambrakos and Ramfou, 2014; Pociovalisteanu and Thalassinou, 2008; Vovchanko *et al.*, 2017).

Encouraging the acceleration of infrastructure development, there needs to be other supporting policies in involving the private sector in the provision of Infrastructure, among others: (1) Encourage the establishment of Infrastructure Development Fund in order to mobilize domestic funds to contribute financially viable infrastructure projects financially. (2) Establishment of Indonesia Infrastructure Forum as the government's strategic dialogue partner in seeking acceleration of infrastructure provision. (3) Establishment of Centers of Public-Private Partnership Service Units (P3 Centers and Units) to develop implementation guidelines and take concrete steps in developing private government cooperation. (4) Preparation of government support programs and strategies and mechanisms through the Risk Management Unit (5) Establishment of a pilot project to be a joint project capital project with the private sector. That is, all parties must be responsible for the problem of infrastructure development, both central and local, and elements of society (Ali Shawket Ahmed Alobaidy and Abood Mohammed Jameel, 2016). Toll road infrastructure investments require enormous costs and high technology usage, where the return on investment takes a long time of approximately 30 years, so to attract investors in the toll road regulation is required that provides regulatory incentives.

One of the factors that determines the success or failure of the organization in the era of highly competitive competition is the quality of Human Resources (HR), because through the ability of intelligence, creativity, and imagination, human resources are able to create organizational benefits (Osman Eroğlu, 2014; Vlasov, 2017).

Furthermore Bernadin and Russel in Ruky (2003) mentions that, human resources are all people who do activities in an organization, either organizations in the form of companies and countries / governments (Cheng Ling Tan and Aizzat Mohd Nasurdin). The long-term growth of toll road investment in Indonesia has a bright prospect considering that Indonesia has abundant natural resource potential, as the main source of the toll road development (Agnieszka Rzepka, 2015). The availability of abundant natural resources and being everywhere is an advantage to investors. This makes something that provides convenience in the supply of raw materials for development and at the same time the price of raw materials is cheap. The framework of research thinking as follows:

**Figure 1.** *Research Thinking Framework*

### 3. Hypothesis Development

Based on the framework formed, the hypothesis is determined as follows: There is a significant influence, either partially or simultaneously. From variable; Investment Regulation, Human Resources, Natural Resources, Capital, Institutional Construction Services, Technology to increase Investment in Toll Road Construction, There is a significant influence of Investment Improvement in Toll Road Development towards Local Tax Revenue, The existence of significant influence, Investment Increase In the development of toll road to the receipt of levies, the existence of significant influence, the increase of investment in toll road development towards the increase of employment, the existence of significant influence, either partially or simultaneously, Local Tax Revenue, Levy Revenue, employment Field Increase towards the growth rate Regional economies.

### 4. Research Methodology

Hypothesis testing methods used descriptive and inductive-quantitative of analysis techniques. Descriptive quantitative techniques such as the presentation of tables, ratios, indices and percentages. Quantitative-inductive in this study used regression model using pooling data which is a combination of time series data from 1993-2005 and cross section data of 20 districts and cities in West Java.

The model specification used is a simultaneous equation model consisting of two structural equations as follows:

$$Y = f(X_1; X_2; X_3; X_4; X_5; X_6)$$

$$Y = \beta_{YX1} X_1 + \beta_{YX2} X_2 + \beta_{YX3} X_3 + \beta_{YX4} X_4 + \beta_{YX5} X_5 + \beta_{YX6} X_6 + \varepsilon_1 \quad (1)$$

where:

$$Z(1, 2, 3) = f(Y) \quad (2)$$

where:

$$Z_4 = f(Z_1; Z_2; Z_3) \quad (3)$$

## 5. Analysis

### 5.1 Analysis of Variable Line X on Variable Y

Path analysis results through software Amos V.5.0 is obtained the results as follows: Through figure 1 above, we can formulate the test results through the following equation:

**Table 1.** Total, Direct and Indirect Influence

| Increase of Toll Road Investment (Y) |        |          |        |        |        |        |        |               |
|--------------------------------------|--------|----------|--------|--------|--------|--------|--------|---------------|
|                                      | Direct | Indirect |        |        |        |        |        | Total Effects |
|                                      | Y      | X 1      | X 2    | X 3    | X 4    | X 5    | X 6    |               |
| X 1                                  | 0,0784 | 0        | 0,0023 | 0,0073 | 0,0062 | 0,0019 | 0,0031 | 0,0949        |
| X 2                                  | 0,0841 | 0,0023   | 0      | 0,0083 | 0,0065 | 0,0026 | 0,0044 | 0,1051        |
| X 3                                  | 0,2209 | 0,0073   | 0,0083 | 0      | 0,0134 | 0,0043 | 0,0029 | 0,2571        |
| X 4                                  | 0,1849 | 0,0062   | 0,0065 | 0,0134 | 0      | 0,0053 | 0,0065 | 0,2228        |
| X 5                                  | 0,0676 | 0,0019   | 0,0026 | 0,0043 | 0,0053 | 0      | 0,0024 | 0,0841        |
| X 6                                  | 0,0961 | 0,0031   | 0,0044 | 0,0029 | 0,0065 | 0,0024 | 0      | 0,1103        |
| Total influence                      |        |          |        |        |        |        |        | 0,8743        |

Investment Regulation has significant effect on Toll Road Investment Improvement, Influence of Human Resources on Increasing Toll Road Investment, Natural Resources has significant effect to the increase of Toll Road Investment, capital has significant effect to Improvement of Toll Road Investment, Institution of Construction Services has significant effect on Road Investment Increase Toll, Technology has a significant effect on Increasing Toll Road Investment.

**Table 2.** Testing ANOVA

| ANOVA      |                |    |             |         |                   |
|------------|----------------|----|-------------|---------|-------------------|
| Model      | Sum of Squares | df | Mean Square | F       | Sig               |
| Regression | 2865.042       | 6  | 955.314     | 117,154 | .000 <sup>3</sup> |

|          |         |    |       |  |  |
|----------|---------|----|-------|--|--|
| Residual | 782.818 | 33 | 8.154 |  |  |
| Total    | 3648.76 | 39 |       |  |  |

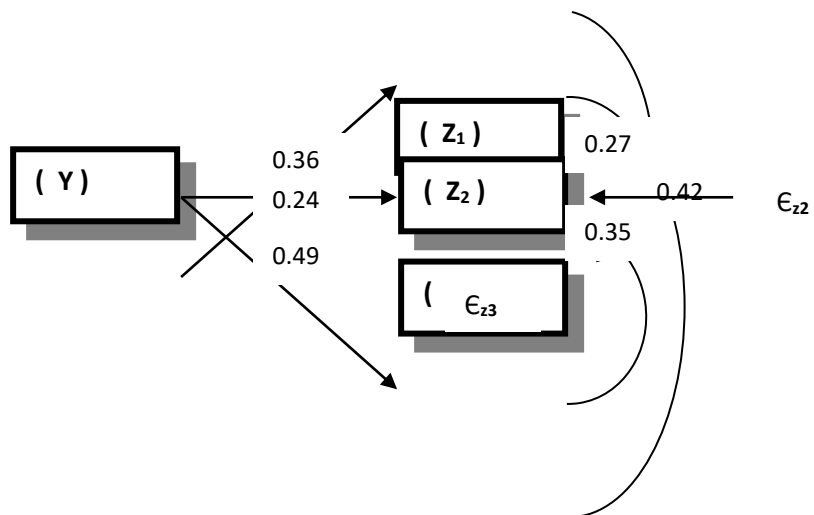
**Note:** a. Predictor (constant), Regulation, Human Resources, SDA, Permodalan, Institutional, Technology b. Dependent Variable: Increase of Toll Road Investment

From the Table above, it appears that F statistic is 117.154. With the level of significance 0.05 obtained price from F table is 2.70. Since F count > F table ( $117,154 > 2,70$ ) or a significance value of 0.000 is much smaller than 0.05 then  $H_0$  is rejected. So it can be concluded that the Regulation of Investment Field, Human Resources, Natural Resources, Capital, Institutional Construction Services, and Technology have significant effect on Increasing Toll Road Investment.

### 5.2 Variable Analysis Y against Variables Z1, Z2, and Z4

In Figure 2 below the path diagram concerning the effect of Y in the dependent variables is shown.

**Figure 2.** Path diagram of the Increase of Toll Road Investment in West Java against the increase of Taxes, levies and employment



### 5.3 Influence of Improvement of Toll Road Investment in West Java towards Tax increase

Using  $Z_1 = f(Y)$  as the related variable in the research equation

$$Y = \rho_{Z_1 Y} Z_1 + \epsilon_{Z_1}$$

we are able to determine the influence of  $Z_1$  to the independent variable. From the result of the data analysis above, it is found that the direct effect of the increase of investment in toll road development in West Java to the increase of tax revenue area

has an influence of about 12,96%, while the rest equal to 87,04% influenced by other variables which are not included in the proposed model.

#### 5.4 The Influence of Improvement of Toll Road Investment in West Java towards the Increase of levies

Using  $Z_2 = f(Y)$  as the related variable in the research equation

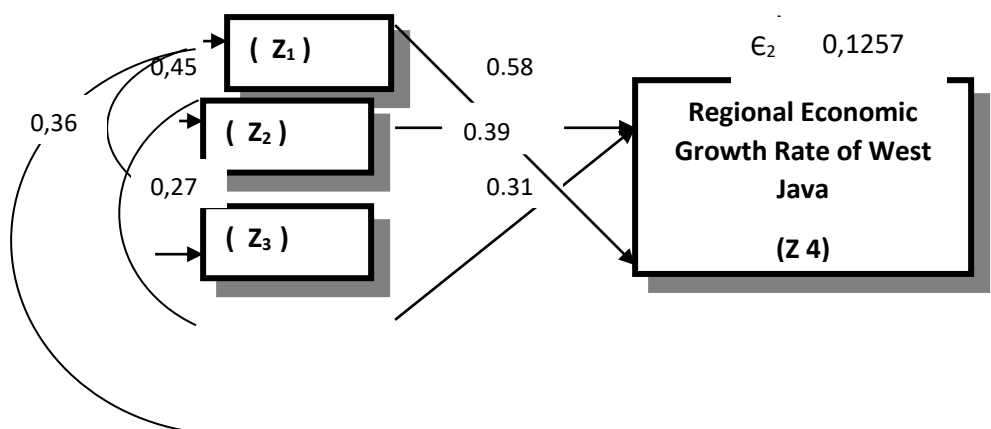
$Y = \rho_{Z_2Y} Z_2 + \epsilon_{Z_2}$ , with an estimated equation  $Y = 0.24 Z_2 + 0.9424$  we are able to conclude that the direct influence of the increase of investment in toll road development in West Java to the increase of retribution income of its influence area is 5,76%, while the rest equal to 94,24% influenced by other variables which are not included in the proposed model.

#### 5.5 Influence of Improvement of Toll Road Investment in West Java towards fieldwork Increase

Using  $Y = f(Z_3)$  as the related variable in the research equation

$Y = \rho_{Z_3Y} Z_3 + \epsilon_{Z_3}$ , with an estimated equation  $Y = 0.46 Z_3 + 0.7599$  we are able to conclude that direct influence from the increase of investment in toll road development in West Java towards the increase of employment growth has influence of 24.01%, while the rest of the 75.99% is influenced by other variables outside the model. This can be interpreted if the increase in toll road investment in West Java continues to increase which will contribute significantly to the Growth of employment in the region. Path analysis results through software Amos V.5.0 obtained results as follows: In general the path equations can be explained as follows:

**Figure 3.** West Java Economic Growth Rate Chart Diagram



By considering the table above, it can be obtained the path equation, namely:

$$Z_4 = 0,31 Z_1 + 0,39 Z_2 + 0,58 Z_3 + \epsilon_2$$

**Table 3.** Total influence, direct and indirect influence

| Economic Growth Rate of West Java |        |          |        |        |               |
|-----------------------------------|--------|----------|--------|--------|---------------|
|                                   | Direct | Indirect |        |        | Total Effects |
|                                   | Z 4    | Z 1      | Z 2    | Z 3    |               |
| Z 1                               | 0,0961 | 0        | 0.0066 | 0,0116 | 0,1143        |
| Z 2                               | 0,1521 | 0.0066   | 0      | 0,0138 | 0,1725        |
| Z 3                               | 0,3364 | 0,0116   | 0,0138 | 0      | 0,3618        |
| Total Influence                   |        |          |        |        | 0,6486        |

Coefficient of Determination (Square Multiple Corelation) is a coefficient used to determine the contribution of independent variables to changes in the dependent variable. Table 3 shows that the variation in the variable of economic growth rate of West Java region can be explained/influenced by 64,86% by variation of variable of Tax Receipts, Acceptance of Levy, and Occupation of Employment, while the rest is Attributed to other variables not included in the proposed model. The ANOVA analysis for all the variables included in the model is shown in Table 4 below:

**Table 4.** ANOVA Testing

| ANOVA      |                |    |             |        |                   |
|------------|----------------|----|-------------|--------|-------------------|
| Model      | Sum of Squares | Df | Mean Square | F      | Sig               |
| Regression | 1432.521       | 3  | 955.314     | 58.512 | .000 <sup>3</sup> |
| Resedual   | 391.409        | 36 | 8.154       |        |                   |
| Total      | 1823.93        | 39 |             |        |                   |

**Note:** a. Predictor (constant), Tax receipts, retribution receipts and job vacancies

b. Dependent Variable: Increased Economic Growth Rate of West Java Region

From the Table above, it appears that F statistic is 58,512. With the level of significance 0.05 obtained price from F table is 2.70. Since F count > F table (58.512 > 2.70) or a significance value (probability) 0.000 is much smaller than 0.05 then H<sub>0</sub> is rejected. So it can be concluded that the Tax Receipts, Area Levy Receipts , Job Growth have a significant effect on Increasing the Regional Economic Growth Rate of West Java.

## 6. Concolusion

The Regulation Variables of Investment Field have significant direct influence which is equal to 7,84% and indirect influence or through its relation with other five variables that is equal to 1,65%. The variable for Human Resources has significant direct influence that is equal to 8,41% and indirect influence or through its relationship with the other five variables of 2.10%. Natural Resources variables with



significantly direct influence of 22.09% and indirect influence or through its relationship with the other five variables of 1.65%. Capital Variables with significantly direct influence of 9.61% and indirect influence or through its relationship with the other five variables of 3.79%. Institutional Variables and Construction Services have a significant direct influence of 6.76% and indirect influence or through its relationship with the other five variables of 1.65%. Variable of Technology has a direct influence of 7, 84% and indirect influence or through its relationship with the other five variables of 1.42%.

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